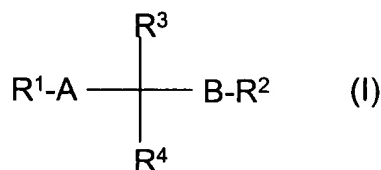


IN THE CLAIMS:

1. (Presently amended) A chemical compound represented by the general formula I



or a pharmaceutically acceptable salt or a hydrate thereof, wherein,

A and B, independently of each another represent a group of the formula $-(\text{CH}_2)_n-$, wherein n represents 0, 1, 2, 3 or 4;

R^1 and R^2 , independently of each another, represent alkyl, cycloalkyl, amino, trihalogenmethyl, nitro, cyano, or phenyl, or a group of the formula $-\text{OR}'$, $-\text{SR}'$, $-\text{C}(\text{O})\text{R}'$, $-\text{C}(\text{S})\text{R}'$, $-\text{CH}_2\text{OR}'$, $-\text{CH}_2\text{SR}'$, $-\text{NR}'\text{C}(\text{O})\text{R}''$, or $-\text{OC}(\text{O})\text{R}'$; a phenyl or a benzyl group or a ~~mono- or poly heterocyclic aromatic group~~ mono-heterocyclic aromatic group selected from the group consisting of 1,3,2,4- or 1,3,4,5-dioxadiazolyl, dioxatriazinyl, dioxazinyl, 1,2,3-, 1,2,4-, 1,3,2- or 1,3,4-dioxazolyl, 1,3,2,4- or 1,3,4,5-

dithiadiazolyl, dithiatriazinyl, dithiazinyl, 1,2,3-dithiazolyl,
furanyl, furazanyl, imidazolyl, isoimidazolyl, 2-isoimidazolyl,
isoindazolyl, isothiazolyl, isoxazolyl, 1,2,3-, 1,2,4-, 1,2,5- or
1,3,4-oxadiazolyl, oxatetrazinyl, oxatriazinyl, 1,2,3,4- or
1,2,3,5-oxatriazolyl, oxazolyl, pyrazinyl, pyrazolyl, pyridazinyl,
pyridinyl, pyrimidinyl, pyrrolyl (azolyl), 1,2,3,4- or 2,1,3,4-
tetrazolyl, thiadiazolyl, thiazolyl, thienyl, 1,2,3-, 1,2,4- or
1,3,5-triazinyl, and 1,2,3-, 1,2,4-, 2,1,3- or 4,1,2-triazolyl or a
polyheterocyclic aromatic group selected from the group consisting
of acridinyl, benzimidazolyl, 1,2- or 1,4-benzisothiazinyl, 1,2- or
1,4-benzisoxazinyl, benzisoxazole, benzothiazolyl, benzofuranyl,
isobenzofuranyl, 2,3-benzopyronyl, 1,2,3,4-benzotetrazinyl,
1,3,4,6-benzotetrazolyl, benzothiazolyl, 1,2,3- or 1,2,4-
benzotriazinyl, 1,2,3- or 2,1,3-benzotriazolyl, benzoxadiazolyl,
benzoxazolyl, carbazolyl, cinnolinyl, coumarinyl, indazolyl,
indolyl, isoindolyl, indolizinyl, purinyl, phenazinyl,
phenothiazinyl, phenanthridinyl, phthalazinyl, pteridinyl,
quinolinyl, quinoxalinyl, isoquinolinyl, quinazolinyl,
quinolizinyl, and xanthrenyl ~~containing one or more 5 and/or 6-~~
~~membered cyclic groups having one or more heteroatoms selected from~~
~~the group consisting of N, O and S, wherein said phenyl, benzyl or~~

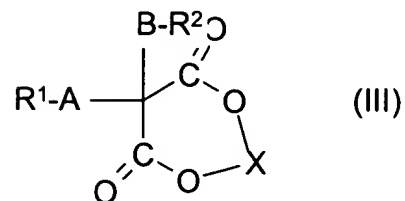
heteroaryl groups are unsubstituted or are substituted one or two times with substituents selected from the group consisting of halogen, trihalogenmethyl, alkyl, amino, nitro, cyano, amido, a group of the formula $-OR'$ and $-SR'$, , a phenyl and a phenoxy group; wherein R' and R'' , independently of each another, represent hydrogen, alkyl cycloalkyl, or a group of the formula $NR'''R''''$, wherein R''' and R'''' , independently of each another, represent hydrogen or alkyl;

R^3 and R^4 , independently of each another, represent

$-C(O)R'$, $-C(O)OR'$, or $-C(O)NR'R''$;

wherein R' and R'' , independently of each another, represent hydrogen, alkyl, cycloalkyl, or a group of the formula $NR'''R''''$, wherein R''' and R'''' , independently of each another, represent hydrogen or alkyl;

or R^3 and R^4 together form a heterocyclic 6-9 membered ring to give a diester derivative of the general formula III

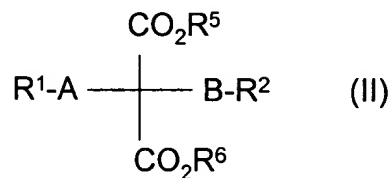


wherein

A, B, R^1 and R^2 are as defined above; and

X represents a carbon chain of the formula $-(CH_2)_n-$, wherein n is 1, 2, 3 or 4.

2. (Previously amended) The chemical compound according to claim 1, which is a malonic acid ester derivative of the general formula II



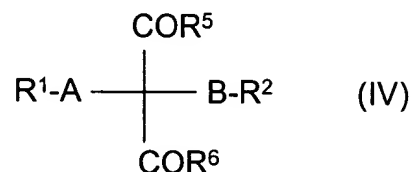
D or a pharmaceutically acceptable salt or a hydrate thereof,
wherein,

A, B, R^1 and R^2 are as defined above, and

R^5 and R^6 , independently of each another, represent hydrogen, alkyl, cycloalkyl, or a group of the formula $\text{NR}'''\text{R}''''$, wherein R''' and R'''' , independently of each another, represent hydrogen or alkyl.

3. (Cancelled)

4. (Previously amended) The chemical compound according to claim 1, which is an oxo derivative of the general formula IV

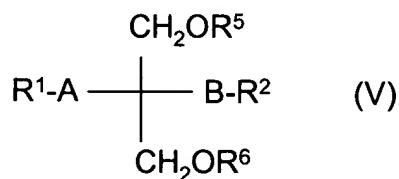


or a pharmaceutically acceptable salt or a hydrate thereof, wherein,

A, B, R¹ and R² are as defined above, and

Dl R⁵ and R⁶, independently of each another, represent hydrogen, alkyl, cycloalkyl, or a group of the formula NR'''R''', wherein R''' and R''', independently of each another, represent hydrogen or alkyl.

5. (Previously amended) The chemical compound according to claim 1, which is an ether derivative of the general formula V



or a pharmaceutically acceptable salt or a hydrate thereof, wherein,

A, B, R¹ and R² are as defined above, and

R⁵ and R⁶, independently of each another, represent hydrogen, alkyl, cycloalkyl, or a group of the formula NR'''R''', wherein R''' and R''', independently of each another, represent hydrogen or alkyl.

DI 6. (Presently amended) The chemical compound according to claim 1 ~~any of claims 1-5~~, wherein R¹ and R² independently of each another represents a hydroxy group; an alkyl group; an alkoxy group; a group of the formula -OC(O)R' wherein R' is hydrogen or alkyl; a group of the formula -NHC(O)R'', wherein R'' is hydrogen or alkyl; a phenyl or a benzyl group, wherein said phenyl and benzyl groups are unsubstituted or substituted one or two times with substituents selected from the group consisting of alkyl, alkoxy, halogen, CF₃, CN, amino, nitro, and a group of the formula -NHC(O)R'', wherein R'' is hydrogen, alkyl or phenyl; a 5- or 6-membered mono- or poly-heterocyclic group, wherein said mono-heterocyclic group is selected from the group consisting of 1,3,2,4- or 1,3,4,5-dioxadiazolyl, dioxatriazinyl, dioxazinyl, 1,2,3-, 1,2,4-, 1,3,2- or 1,3,4-dioxazolyl, 1,3,2,4- or 1,3,4,5-

dithiadiazolyl, dithiatriazinyl, dithiazinyl, 1,2,3-dithiazolyl,
furanyl, furazanyl, imidazolyl, isoimidazolyl, 2-isoimidazolyl,
isoindazolyl, isothiazolyl, isoxazolyl, 1,2,3-, 1,2,4-, 1,2,5- or
1,3,4-oxadiazolyl, oxatetrazinyl, oxatriazinyl, 1,2,3,4- or
1,2,3,5-oxatriazolyl, oxazolyl, pyrazinyl, pyrazolyl, pyridazinyl,
pyridinyl, pyrimidinyl, pyrrolyl (azolyl), 1,2,3,4- or 2,1,3,4-
tetrazolyl, thiadiazolyl, thiazolyl, thienyl, 1,2,3-, 1,2,4- or
1,3,5-triazinyl, and 1,2,3-, 1,2,4-, 2,1,3- or 4,1,2-triazolyl and
said polyheterocyclic group is selected from the group consisting
of acridinyl, benzimidazolyl, 1,2- or 1,4-benzisothiazinyl, 1,2- or
1,4-benzisoxazinyl, benzisoxazole, benzothiazolyl, benzofuranyl,
isobenzofuranyl, 2,3-benzopyronyl, 1,2,3,4-benzotetrazinyl,
1,3,4,6-benzotetrazolyl, benzothiazolyl, 1,2,3- or 1,2,4-
benzotriazinyl, 1,2,3- or 2,1,3-benzotriazolyl, benzoxadiazolyl,
benzoxazolyl, carbazolyl, cinnolinyl, coumarinyl, indazolyl,
indolyl, isoindolyl, indolizinyl, purinyl, phenazinyl,
phenothiazinyl, phenanthridinyl, phthalazinyl, pteridinyl,
quinolinyl, quinoxalinyl, isoquinolinyl, quinazolinyl,
quinolizinyl, and xanthrenyl, and wherein said 5- or 6-membered
mono- or poly-heterocyclic ~~heterocyclic~~ group is unsubstituted or

substituted one or two times with substituents selected from the group consisting of halogen, CF_3 , CN, amino, and nitro.

DI 7. (Withdrawn, original) The chemical compound according to claim 6, wherein R1 and R2 independently of each another represents phenyl; 2, 3 or 4-alkylphenyl; 2,3 or 4-alkylbenzyl; 2, 3 or 4-alkoxyphenyl; 2, 3 or 4-alkoxybenzyl; 2, 3 or 4-chlorophenyl; 2, 3 or 4-chlorobenzyl; 2, 3 or 4-fluorophenyl; 2, 3 or 4-bromobenzyl; 2, 3 or 4-bromophenyl; 2, 3 or 4-chlorobenzyl; 2, 3 or 4-aminophenyl; 2, 3 or 4-aminobenzyl; 2, 3 or 4-nitrophenyl; 2, 3 or 4-nitrobenzyl; 2, 3 or 4-trifluoromethylphenyl; 2, 3 or 4-benzoylamino-phenyl; 2, 3 or 4-benzolyaminobenzyl; 2, 3 or 4-acetylamino-phenyl; 2, 3 or 4-acetylamino-benzyl; 2, 3 or 4-trifluoromethylbenzyl; 2-nitro-4-trifluoromethyl-5-chlorophenyl or 2-nitro-4-trifluoromethyl-5-chlorobenzyl.

8. (Cancelled)

9. (Presently amended) The chemical compound according to claim & 6, wherein the mono-heterocyclic group is selected from the group consisting of 2- or 3-furanyl, 2-, 4- or 5-imidazolyl, 3-, 4- or 5-isoxazolyl, 2-, 3- or 4-pyridinyl, and 2- or 3-thienyl.

10. (Withdrawn, original) The chemical compound according to claim 9, wherein the mono-heterocyclic group is 4-(3,5-demethyl)-isoxazolyl.

D | 11. - 13. (Cancelled)

14. (Withdrawn, original) The chemical compound according to claim 6, herein the heteroalkyl group is furfuryl, or picolyl.

15. (previously amended) The chemical compound according to claim 1, wherein the chemical compound is
Diethyl 2-(4-fluorophenyl)-2-(3-picolyl)malonate;
Diethyl 2-(4-nitrophenyl)-2-(2-picolyl)malonate;
Diethyl 2-(4-nitrophenyl)-2-(4-picolyl)malonate;
Diethyl 2-phenyl-2-(3-picolyl)malonate;

Diethyl 2-(5-chloro-2-nitro-4-(trifluoromethyl)phenyl)-2-(3-picolyl)malonate;

Diethyl 2-benzyl-2-(3-picolyl)malonate;

Diethyl 2-(4-nitrophenyl)-2-[(benzotriazol-1-yl)methyl]malonate;

Diethyl 2-(2-thienyl)-2-(2-picolyl)malonate;

Diethyl 2-(4-(acetylamino)phenyl)-2-(2-picolyl)malonate;

Diethyl 2-(4-(benzoylamino)phenyl)-2-(2-picolyl)malonate;

2-(4-nitrophenyl)-2-(2-picolyl)malononitril;

Diethyl 2-(2-thienyl)-2-(4-nitrophenyl)malonate;

Diethyl 2-(2-thienyl)-2-(3,5-dimethylisoxazol-4-ylmethyl)malonate;

Diethyl 2-(2-thienyl)-2-(2-chlorobenzyl)malonate;

Dimethyl 2-methoxy-2-(2-picolyl)malonate;

Diethyl 2-acetamido-2-(2-picolyl)malonate;

Diethyl 2-acetamido-2-(2-chlorobenzyl)malonate;

Diethyl 2-acetamido-2-(3-chlorobenzyl)malonate;

Diethyl 2-(4-nitrophenyl)-2-(3,5-dimethylisoxazol-4-ylmethyl)malonate;

Diethyl 2-(4-nitrophenyl)-2-(benzotriazol-1-ylmethyl)malonate;

Diethyl 2-(p-tolyl)-2-(2-picolyl)malonate;

Diethyl 2-(2-thienyl)-2-(2-picolyl)malonate;

Diethyl 2-(2-chlorophenyl)-2-(2-picolyl)malonate;

Diethyl 2-(2-bromobenzyl)-2-(4-nitrophenyl)malonate;
Di-t-butyl 2-(4-nitrophenyl)-2-(2-picolyl)malonate;
Diethyl 2-(4-fluorophenyl)-2-(2-picolyl)malonate;
Diethyl 2-(4-methoxy)-2-(2-picolyl)malonate;
Diethyl 2-(4-nitrophenyl)malonate;
Diethyl 2-(5-chloro-2-nitro-4-trifluoromethylphenyl)malonate;
Diethyl 2,2-bis(2-picolyl)malonate;
Diethyl 2-(2-picolyl)malonate;
Di-t-butyl 2-(4-nitrophenyl)malonate;
Diethyl 2-phenyl-2-(acetoxymethyl)malonate;
2-Chlorophenylacetonitrile;
2-(2-Chlorophenyl)butyronitrile;
2-(2-Chlorophenyl)-2-ethylbutyronitrile;
2-(3-Phenoxyphenyl)butyronitrile;
2-Ethyl-2-(3-phenoxyphenyl)butyronitrile;
Ethyl 2-(4'-chlorophenyl))-2,2-diallyl-acetate;
Ethyl 1-(4'-chlorophenyl)cyclopent-3-ene-1-carboxylate;
Ethyl 1-(4-chlorophenyl)cyclopentane-1-carboxylate;
1-(4-Chlorophenyl)-1-(3-methyl-5-oxadiazolyl)cyclopentane;
N,N-Dimethyl 1-(4-chlorophenyl)cyclopentane-1-carboxamide;
N,N-Diethyl 1-(4-chlorophenyl)cyclopentane-1-carboxamide;

N-Phenyl 1-(4-chlorophenyl)cyclopentane-1-carboxamide;
Diethyl 2-phenyl-2-(hydroxymethyl)malonate;
Dicyclopropan(4-chlorophenyl)carbinol;
O-(2-picolyl) dicyclopropan(4-chlorophenyl)carbinol;
Diethyl 2-(2-thienyl)malonate;
Diethyl 2-(4-aminophenyl)-2-(2-picolyl)malonate;
2-(4-nitrophenyl)malononitril;
2-Cyano-2-(4-nitrophenyl)-3-(2-pyridyl)propionamide;
Diethyl 2-(4-(benzoylamino)phenyl)-2-(2-picolyl)malonate;
D
Diethyl 2-(4-(acetylamino)phenyl)-2-(2-picolyl)malonate;
Diethyl 2-(2-chlorophenyl)malonate;
Diethyl 2-(4-fluorophenyl)malonate;
Diethyl 2-(4-methoxyphenyl)malonate;
Diethyl 2-bromobenzylmalonate; or
Diethyl 4-chlorobenzylidenemalonate;
or a pharmaceutically acceptable salt or a hydrate thereof.

16. - 23. (Cancelled)

24. (Previously amended) A method of treatment or alleviation of a disease or disorder or a condition of a living animal, including a human, which disorder or disease or condition is responsive to modulation of SKCa, IKCa and/or BKCa channels, comprising the step of administering to such a living animal body, including a human, in need thereof a therapeutically effective amount of a chemical compound represented by the general formula (I) of claim 1, or a pharmaceutically-acceptable addition salt thereof.

D/ 25. (Original) The method of claim 24 for the treatment or alleviation of respiratory diseases such as asthma, cystic fibrosis, chronic obstructive pulmonary disease and rhinorrhea, convulsions, vascular spasms, coronary artery spasms, renal disorders, polycystic kidney disease, bladder spasms, urinary incontinence, bladder outflow obstruction, irritable bowel syndrome, gastrointestinal dysfunction, secretory diarrhoea, ischaemia, cerebral ischemia, ischaemic heart disease, angina pectoris, coronary heart disease, traumatic brain injury, psychosis, anxiety, depression, dementia, memory and attention deficits, Alzheimer's disease, dysmenorrhea, narcolepsy, Reynaud's disease, intermittent

claudiction, Sjorgren's syndrome, migraine, arrhythmia,
D/ hypertension, absence of seizures, myotonic muscle dystrophia,
xerostomi, diabetes type II, hyperinsulinemia, premature labour,
baldness, cancer and immune suppression.
